

C.) REMARKS

Introduction

The Office Action has been received and carefully considered. Claims 1-29 are pending in the application. Claim 9 is objected to and claims 1-29 stand rejected by the Examiner. By this amendment claims 1-5, 8-14 and 23-26 are amended, claim 27 is withdrawn, and the claim rejections are believed to be traversed. No new matter is added by these amendments. As such, Applicant respectfully submits that the application is now in condition for allowance and in better form for consideration on appeal. Accordingly, Applicant respectfully requests entry of the amendments.

Claim Objections

Applicant thanks the Examiner for identifying the typographical error in claim 9. In accordance with the Examiner's suggestion, claim 9 has been amended to replace the misspelled term "later" with "layer." In addition, Applicant has amended claim 26 to change the term "fixed length" to be in hyphenated form (*i.e.*, "fixed-length") to be consistent with the remainder of claim 26. Applicant believes that the current amendments obviate the Examiner's claim objections, and respectfully requests entry thereof and reconsideration and withdrawal of the claim objection.

Claim Rejections

§ 103 Rejections

Claims 1-29 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over various combinations of prior art. Applicant respectfully submits that the claims as they are presently amended overcome this rejection. Therefore, Applicant respectfully requests entry of the amendments and reconsideration and allowance of the proposed amended claims in view of the following remarks.

Three criteria must be met to establish a *prima facie* case of obviousness: (1) there must be some suggestion or motivation to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art

references must teach or suggest all the claim limitations. *See* MPEP § 2142 *et seq.* Applicant respectfully submits that the prior art of record, regardless of whether it is properly combined, fails to teach or suggest all of the features of the proposed amended claims, and therefore there is no *prima facie* case of obviousness.

A. McNichols, *et al.* (6,149,755) in view of Rajala, *et al.* (5,643,396)

The Examiner rejected claims 1-3 and 6-29 under U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,149,755 to McNichols, *et al.* ("McNichols") in view of U.S. Patent No. 5,643,396 to Rajala, *et al.* ("Rajala"). Applicant submits that the proposed amended claims traverse the Examiner's objection for at least the following reasons.

McNichols discloses a combination roller, employed to cut a discrete workpiece from an component web, and place it on a substrate web. McNichols, col. 11, ll. 5-23. The speed of the combination roller is selectively controlled and varied by a servomotor that has been programmed using a desired speed profile. *Id.* at col. 11, ll. 53-67. The speed profiles, depicted in Fig. 20, are designed to change the speed of the workpiece from a first speed (of the component web) to a second speed (of the substrate web). *Id.* at col. 12, ll. 8-43. McNichols teaches that the workpieces are held against the surface of the combination roller via a vacuum means (*Id.* at col. 10, ll. 35-37). The Examiner acknowledges that McNichols does not disclose the feature that one or more applicator heads are mounted on fixed-length arms. *See* Office Action, page 2. However, the Examiner alleges that the feature of one or more heads located on fixed-length arms is well known in the art as shown, for example, in Rajala. Office Action, page 2.

Rajala discloses a crotch elastic application subsystem, wherein the apparatus receives discrete parts traveling at a first speed, and applies them to a receiving web traveling at a second speed. Rajala, col. 37, ll. 35-39. Rajala also discloses that "the apparatus 530 can utilize one or, in the alternative, two, three or more combinations of transfer assembly 540 and driven apparatus 544 in series to achieve the desired application of discrete parts to the substrate web." *Id.* at col. 38, ll. 57-61. An example

of this "series" configuration is shown in Figs. 34A, 34B, 35 and 36, and another example is also shown in Fig. 47. Referring to Figs. 34A, 34B, 35 and 36, and the description at column 39, lines 6-17, Rajala teaches three rotatable transfer assemblies 540A, 540B, and 540C, each attached to a respective drive apparatus 544A, 544B, and 544C including a noncircular driven gear 548A, 548B and 548C. The relative position or angle of each transfer assembly is directly affected by the relative velocities imparted by the respective non-circular gears. It is readily apparent that, at any specific moment, each of the concentrically-aligned transfer assemblies 540A, 540B and 540C is rotating at a *different velocities* than the others, and therefore they not maintain a fixed angular positions to one other during operation. As shown in Rajala's Figs. 36 and 47, during operation, the angles between the transfer assemblies will increase and decrease during operation, or "scissor." (a similar phenomenon is described in more detail in the present application at page 23, line 16 to page 24, line 16 with regard to Figures 8 through 9C of the present application). The "serial" design taught in Rajala is extremely cumbersome and expensive to manufacture and maintain because it requires a complex set of gears and concentric shafts. Furthermore, it is also unclear how a vacuum could be applied to the transfer assemblies in Rajala's complex "serial" design.

Claims 1 and 26 are proposed to be amended to recite that the apparatus comprises an applicator having a plurality of arms and a plurality of heads. In the proposed amended claims, each head is located on an fixed-length arm, and the heads are fixed relative to one another at predetermined angles as measured relative to the axis. As such, while the heads rotate along with the applicator, they do not move radially (because they are attached to fixed-length arms) and they do not rotate relative to one another — that is, the angles between the heads remains constant during operation. Support for this amendment is found, for example, on page 20, lines 13-14 of the present specification, where the Applicant provides that, "the applicator 110 has two applicator heads 118 rigidly located on opposite ends of the applicator 110," and at page 21, lines 7-20 and Figure 6A, where the Applicant explains that the heads are

simultaneously accelerated and decelerated because they are rigidly connected to one another and therefore move in unison. Claims 2-5, 8-14 and 23-25 are also proposed to be amended to use consistent terminology to describe the claim elements, and claim 27 is proposed to be withdrawn.

Furthermore, claims 1 and 26 have been amended to include the additional feature that the angles between the heads are not equal to the angle between the first (pick-up) location and the second (deposit) location (all of the angles are measured about the rotating axis of the device). Support for this amendment is found, for example, at pages 20-22, where the Applicant explains the acceleration and deceleration zones of the applicator heads, and notes that "the supply feeder 112 and the target web 102 have been located at the points where the applicator head 118 is at its minimum and maximum velocity, respectively." Page 21, lines 21-23. This is done because when the applicator heads are rigidly fixed to each other at a predetermined angle, the heads all move in unison, and it is therefore impossible to have one applicator head picking up a workpiece at minimum speed while the other applicator head is simultaneously transferring another workpiece at a maximum speed. Accordingly, the angles between any two of the applicator heads, relative to the axis of rotation, must be different from the angle between the supply feeder and the target web, relative to the axis of rotation.

Neither McNichols nor Rajala teach the described features of proposed amended claims 1 and 26. First, as the Examiner has acknowledged, McNichols fails to teach or suggest one or more heads on fixed-length arms. Second, McNichols does not teach or suggest the feature of locating the first (pick-up) and second (deposit) locations at an angle that is not equal to the angle between the heads. In fact, in Fig. 19, McNichols appears to show the two applicator heads and the first and second locations *both* being 180° apart, which would subject the workpiece and the target object to rubbing damage caused by the speed differential of the device as it slows down to pick up the workpiece and accelerates to deposit it on the target. Similarly, Rajala also fails to teach various features of proposed amended claims 1 and 26. First, Rajala fails to disclose that the

heads are fixed, in the angular sense, relative to one another because the Rajala transfer assemblies are driven at different speed profiles and therefore scissor in relation to one another. Furthermore, as shown in Rajala's Fig. 47, the angle between the applicator heads appears to be capable of being equal to the angle between the first (pick-up) and second (deposit) locations during portions of the rotation cycle. Still further, there would be no motivation to combine Rajala with McNichols to derive a device like Rajala that has angularly-fixed heads because this would (a) change the principal of operation of Rajala, which relies on using a separate non-circular gear for each applicator (see Rajala col. 40, ll. 9-16), and (b) render Rajala unsatisfactory for its purpose of *avoiding* exposing the parts to damaging rubbing caused by speed differentials, such as those that would occur in McNichols, by accelerating and decelerating each applicator independently to match the desired pick-up and deposit speeds (see Rajala col. 42, ll. 36-47).

In summary, the Applicant submits that McNichols fails to teach an applicator, having a plurality of applicator heads located on fixed-length arms. Rajala fails to teach an apparatus having a plurality of applicator heads located on fixed-length arms in which the applicator heads are angularly-fixed relative to one another. And both references fail to teach or suggest that the predetermined angle between any of the heads does not equal the angle between the first (pick-up) and second (deposit) location, relative to the axis of rotation. Therefore, the references in combination do not teach or suggest all the elements of independent claims 1 and 26, or claims 2-3, 6-25 and 28-29 depending therefrom, and do not support a *prima facie* case of obviousness. Accordingly, the Applicant respectfully requests that the Examiner enter the amendments and reconsider and withdraw these rejections and enter and allow proposed claims 1-3, 6-26 and 28-29.

B. McNichols, in view of Rajala and Killian (5,850,711)

The Examiner rejected claims 4 and 5 under U.S.C. § 103(a) as allegedly being unpatentable over McNichols, in view of Rajala, and further in view of U.S. Patent No.

5,850,711 to Killian ("Killian"). Applicant submits that the proposed amended claims traverse the Examiner's objection for at least the following reasons.

With respect to claims 4 and 5, the Examiner acknowledges that McNichols does not disclose devices such as a mechanical gripping device or a combination of gripping devices, but that this feature is well known and conventional as shown, for example, by Killian. Office Action, page 4. As discussed above, McNichols and Rajala fail to teach all of the claimed features of the proposed amended claims. Killian fails to remedy the deficiencies of McNichols and Rajala because it also fails to teach or suggest the claimed features described above. Therefore, the references in combination do not teach or suggest all the elements of the claims, and do not support a *prima facie* case of obviousness. Accordingly, the Applicant respectfully requests that the Examiner reconsider and withdraw these rejections and allow proposed amended claims 4 and 5.

Conclusion

For at least the reasons outlined above, Applicant submits that the application is in condition for allowance. Entry of the amendments and favorable reconsideration and allowance of the pending claims are respectfully solicited. Should there be any questions regarding the foregoing, the Examiner is invited to contact the applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,
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